

2812

Approved for use through 04/30/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
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<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/005,065
	Filing Date	12/4/2001
	First Named Inventor	Krasulick
	Art Unit	2812
	Examiner Name	Ian J. Lobo
(Also, copies of Cited References) Total Number of Pages in This Submission	5	Attorney Docket Number OPT-003

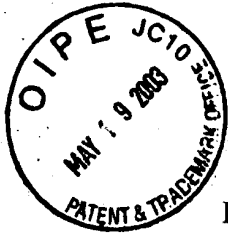
ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	Form PTO 1449 (2 pgs); Copies of References Cited (A1-A2, B1, C1-C4); Copy of Int. Search Report; and Return Receipt Postcard.
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks _____	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual	Kurt Rauschenbach
Signature	<i>Kurt Rauschenbach</i>
Date	May 15, 2003

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date: May 15, 2003	
Typed or printed	Kurt Rauschenbach
Signature	<i>Kurt Rauschenbach</i>
Date	May 15, 2003

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PATENT  
Attorney Docket No. OPT-003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Krasulick et al.  
SERIAL NO.: 10/005,065 GROUP NO.: 2812  
FILING DATE: December 4, 2001 EXAMINER: Ian J. Lobo  
TITLE: ELECTRO-ABSORPTION MODULATED LASER WITH HIGH  
OPERATING TEMPERATURE TOLERANCE

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. BOX 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. §1.97, Applicants hereby make of record the references listed on the accompanying Form PTO-1449 for consideration by the Examiner in connection with the examination of the above-identified patent application. Copies of the references are enclosed. Also, enclosed is a copy of the International Search Report for the PCT counterpart application.

RECEIVED  
MAY 20 2003  
IC 2800 MAIL ROOM

REMARKS

In accordance with the provisions of 37 C.F.R. §1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **Filing Date** or before the mailing date of the **First Office Action** on the merits; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **Final Rejection** or **Notice of Allowance**, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under Rule 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **Final Rejection** or **Notice of Allowance** but before the payment of the **Issue Fee**, **AND**
- ☐ Applicant hereby Petitions the Commissioner to accept and consider the attached Information Disclosure Statement, **AND**

- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee due under Rule 1.17(i)(I), namely **\$130.00** is included herein.

It is respectfully requested that each of the references shown on the attached Form PTO-1449 be made of record in this application.

### STATEMENT

As required under §1.97(e), Applicants, through the undersigned, hereby state either that [check the appropriate space]:

- ☐ 1. [E]ach item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application **not more than** three months prior to the filing date of the Information Disclosure Statement; or
- ☐ 2. [N]o item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any** individual designated in §1.56(c) **more than** three months prior to the filing of the Information Disclosure Statement.

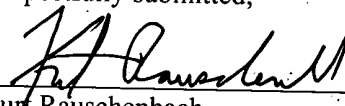
### FEE AUTHORIZATION

Should any fee associated with the submission of this paper not be attached hereto as a check, the Commissioner is authorized to charge the missing fee to our Deposit Account, No. 501211. Any overpayments should be credited to said Deposit Account.

Date: May 15, 2003  
Reg. No. 40,137

Tel. No.: (781) 271-1503  
Fax No.: (781) 271-1527

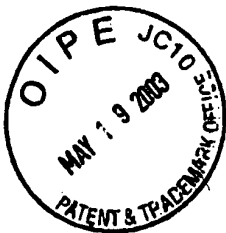
Respectfully submitted,

  
Kurt Rauschenbach  
Atty/Agent for Applicant(s)  
Rauschenbach Patent Law Group, LLC  
Post Office Box 387  
Bedford, MA 01730

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>5</sup> Kind of document by the English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/005,065
		Filing Date	12/4/2001
		First Named Inventor	Krasulick
		Group Art Unit	2812
		Examiner Name	Ian J. Lobo
Sheet 2 of 2	Attorney Docket Number	OPT-003	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials <sup>2</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C1	CLESCA B. ET AL, 3.2 NM Wavelength Tuning Via Temperature Control For Integrated Electroabsorption modulator/DBF Laser With High Tolerance To Chromatic Dispersion, Electronics Letters, IEE Stevenage, May 9, 1996, Pages 927-929, Vol. 32, no. 10, GB.
	C2	GOTO ET AL, Design And Performance Of A 10-Gbit/s Optical Transmitter Module, Proceedings Of The Electronic Components And Technology Conference, May 18-20, 1992, Pages 830-837, Vol. Conf. 42, IEEE, New York.
	C3	HIDEAKI TANAKA ET AL, Temperature Dependence of InGaAsP Electro-Absorption Modulator Module, Proceedings Of The International Conference On Indium Phosphide And Related Materials, May 9-13, 1995, Pages 540-543, Vol Conf. 7, IEEE, New York.
	C4	HOU H. Q. ET AL, Demonstration Of Wide-Temperature-Range Electroabsorption Modulation Near 1.5 um Using Coupled Quatum Wells, Semiconductor Science and Technology, October 1, 1996, Pages 1429-1433, Vol. 11, No. 10, Institute of Physics, London.

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

# PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

<b>To:</b> RAUSCHENBACH, Kurt Post Office Box 387 Bedford, MA 01730 UNITED STATES OF AMERICA
--

Date of mailing (day/month/year)	15/04/2003
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Applicant's or agent's file reference <b>OPT-003PCT</b>	<b>FOR FURTHER ACTION</b> See paragraphs 1 and 4 below
--	--

International application No. <b>PCT/US 02/ 20428</b>	International filing date (day/month/year)
--	---

Applicant <b>OPTIUM CORPORATION</b>	28/06/2002
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1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the      International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

**For more detailed instructions,** see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Jolanda Offerman-Hazeleger

## NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

#### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

#### When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

#### How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

#### What documents must/may accompany the amendments?

##### Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

## NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:  
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:  
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:  
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or  
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:  
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

### "Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

### Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

### Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.



# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>OPT-003PCT</b>	<b>FOR FURTHER ACTION</b>		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. <b>PCT/US 02/20428</b>	International filing date (day/month/year) <b>28/06/2002</b>	(Earliest) Priority Date (day/month/year) <b>11/07/2001</b>	
Applicant <b>OPTIUM CORPORATION</b>			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of \_\_\_\_\_ sheets.



It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

### 4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

### 5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

### 6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

5



None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/20428

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G02F1/017 G02F1/015 G02F1/01 H01S5/026 H01S5/06  
H04B10/155

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G02F H01S H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, IBM-TDB, EPO-Internal, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>CLESCA B ET AL: "3.2 nm wavelength tuning via temperature control for integrated electroabsorption modulator/DFB laser with high tolerance to chromatic dispersion" ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 32, no. 10, 9 May 1996 (1996-05-09), pages 927-929, XP006005131 ISSN: 0013-5194 the whole document</p> <p style="text-align: center;">--- -/--</p>	<p>1,2,4-6, 8-16, 18-21, 23-26, 29-32</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

7 April 2003

Date of mailing of the international search report

15/04/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Stang, I

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/20428

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GOTO M ET AL: "Design and performance of a 10-Gbit/s optical transmitter module" PROCEEDINGS OF THE ELECTRONIC COMPONENTS AND TECHNOLOGY CONFERENCE. (ECTC). SAN DIEGO, MAY 18 - 20, 1992, NEW YORK, IEEE, US, vol. CONF. 42, 18 May 1992 (1992-05-18), pages 830-837, XP010052497 ISBN: 0-7803-0167-6 * sections 4, 5 * figure 16</p>	1,2, 5-10, 14-16, 18,21, 23,29
X	<p>HIDEAKI TANAKA ET AL: "TEMPERATURE DEPENDENCE OF INGAASP ELECTRO-ABSORPTION MODULATOR MODULE" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON INDIUM PHOSPHIDE AND RELATED MATERIALS. HOKKAIDO, MAY 9 - 13, 1995, NEW YORK, IEEE, US, vol. CONF. 7, 9 May 1995 (1995-05-09), pages 540-543, XP000630678 ISBN: 0-7803-2148-0 page 541, left-hand column, line 1 - line 3 page 541, left-hand column, line 30 -page 542, left-hand column, line 21; figures 1-5</p>	1,3,5-8, 13,17, 21-23
X	<p>HOU H Q ET AL: "DEMONSTRATION OF WIDE-TEMPERATURE-RANGE ELECTROABSORPTION MODULATION NEAR 1.5 MUM USING COUPLED QUANTUM WELLS" SEMICONDUCTOR SCIENCE AND TECHNOLOGY, INSTITUTE OF PHYSICS. LONDON, GB, vol. 11, no. 10, 1 October 1996 (1996-10-01), pages 1429-1433, XP000626528 ISSN: 0268-1242 page 1432; figure 5</p>	1,2,4-8
A	<p>EP 0 558 089 A (HITACHI LTD) 1 September 1993 (1993-09-01)  * Embodiment 1 * figures 6,7</p>	1,2,5-8, 13-16, 21,23
P,X	<p>US 2001/026570 A1 (HISANAGA YUKIHIRO ET AL) 4 October 2001 (2001-10-04) page 6, paragraph 89 - paragraph 90 page 9, paragraph 100 page 10, paragraph 112 page 11, paragraph 123 - paragraph 124</p>	1,2,5

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/20428

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0558089	A	01-09-1993	JP 3306892 B2	24-07-2002
			JP 5243551 A	21-09-1993
			JP 5267709 A	15-10-1993
			DE 69331979 D1	11-07-2002
			DE 69331979 T2	23-01-2003
			EP 0558089 A2	01-09-1993
			US 5574289 A	12-11-1996
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